

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

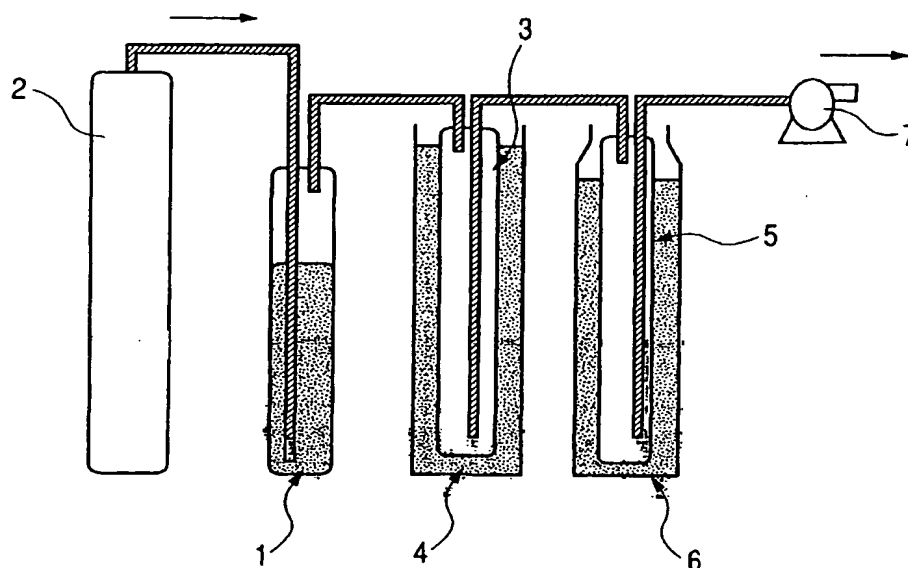
PCT

(10) International Publication Number
WO 2004/114324 A3

- (51) International Patent Classification⁷: **G21G 4/04** (74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 1000005 (JP).
- (21) International Application Number: PCT/JP2004/008407 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 9 June 2004 (09.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2003-174296 19 June 2003 (19.06.2003) JP (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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[Continued on next page]

(54) Title: METHOD FOR PRODUCING A SEALED ²¹⁰Pb-²¹⁰Po ALPHA SOURCE (ALPHA PARTICLE EMITTER) AND APPARATUS THEREOF



(57) Abstract: The present invention provides a method for producing a sealed ²¹⁰Pb-²¹⁰Po α source (α particle emitter) and an apparatus thereof, which can be used as an α particle source for a random pulse generator. The method for producing a sealed ²¹⁰Pb-²¹⁰Po α source (α particle emitter) includes the steps of: collecting ²¹⁰Pb-²¹⁰Po with a ²¹⁰Pb collector using radon collection; precipitating the hydroxides of the collected ²¹⁰Pb-²¹⁰Po and collecting the precipitates by a polycarbonate (PC) filter; dissolving the ²¹⁰Pb-²¹⁰Po hydroxide precipitate to form a ²¹⁰Pb-²¹⁰Po radioactive thin film; and sealing the ²¹⁰Pb-²¹⁰Po radioactive thin film for protection.



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

24 February 2005